**String Manipulation and Arrays Programming Assignment Instructions**

**Overview**

**Hebrews 10:25  
“Let us not give up the habit of meeting together, as some do. Instead, let us encourage one another all the more since you see that the Day of the Lord is coming nearer.”**

**This week, we are going to utilize arrays. You have freedom with this assignment in what you create your array for. You will have two arrays. One will hold a mission team, group of people, and life groups; the other will be a parallel array that will hold the number of people associated with this group. You must have five different values in your initial array. The example below is five different types of life groups, and it keeps track of the number of members. Be creative!**

**Instructions**

1. All assignments must include a Kaltura video where you, as the student, step through your code and explain your methods, logic, and choices. This video should provide an overview of the assignment, a detailed walkthrough of your code, and a reflection on what you learned. Assignments without the required video will not be accepted. For this assignment, you must review the creation of the form and how the array and parallel array were created. This ensures academic integrity and helps you demonstrate your understanding of the material.
2. All assignments must include a Word document with the code from .vb copied and pasted into a Word Document and submitted outside of the .zip file. Do not use images but a copy of the code.
3. **Form Setup**
   1. **You must save your project using your initials in the name\*\* This is required, and the project will not be accepted otherwise.**
   2. Create a comment section at the beginning of the code with the name of the assignment, the purpose of the assignment, and your name. **\*\* This is required for the assignment to be accepted.**
   3. **All form design must be completed from the form and through its properties. The initial form setup should not be done through the code.**
   4. Create a comment section after your name to include: “I will not use code that was never covered in class or our textbook. If you do, you must be able to explain your code when the professor asks**. Using code outside the resources provided** can be flagged and reported as an academic integrity violation if there is any suspicion of copying/cheating.” **\*\* This is required for the assignment to be accepted.**
   5. **Design your screen to include all of the requirements below. An example of one design is found below. You can be creative. Do not use the groups in the example.**
   6. **Update the back color to the color of your choice.**
   7. **Include the following controls:**
      1. **Labels to explain the Number to enter and the different areas of the array**
      2. **Listbox (lstType): This will display the array values—for example the different types of life groups for the user to choose.**
      3. **Listbox (lstDisplay): This will display the initial information with your name, and then with each update, it will display the names to be added or deleted.**
      4. **Group Box (grpType): This will hold two radio buttons, radDelete and radAdd.**
      5. **Button (btnUpdate): This will add or delete members from the groups**
      6. **Button (btnClose): This will close the application**
      7. **Labels: These will hold the values of the parallel array associated with the initial array. All labels must have a border and be centered.**
   8. **Tab Control must flow from number to lstType, to Update Button, to Close Button.**
   9. **All buttons have access keys**
   10. **Lock the controls on your form.**
4. Code
   1. Remove any subs that are not utilized by the program.
   2. A one-dimensional string array will be created to hold the five types of groups (global)
   3. A parallel array will be created to hold the number in each group (global)
5. Form Load
   1. Load the group list array into the lstType. Do not manually add the list to the list box; use the load to add the array using a for loop.
   2. Display the current Date (can be done manually) and your name to the lstDisplay.. This is the current date and is hard-coded to display when you did your assignment.
6. **Update Button**
   1. The **information that was entered should be checked to make sure there are values entered. If the user entry contains null values, the user should be so advised, and the user should be directed to the text box that contains the error. Make sure your error messages are meaningful.**
   2. Get the values for the group, the amount to be added or deleted, and whether the user will add or delete.
   3. Create a case statement to determine if the user is adding or deleting based on the radio button checked. You will have two steps for each select case. For example, the in the case of an add you will add the value and save add to a variable to use later in the display. This will add or subtract the number of members from the parallel array. Utilize the selected index to update the parallel array.
   4. Call the Update Labels sub to update the labels with the new hours.
   5. Call the getName sub to display the name of the members
   6. After the display, clear the selected index of the donation listbox, and amount text box.
   7. **Make sure all spacing is accurate**
7. **Update Labels Sub**
   1. **Call the sub to update the numbers' labels using the parallel array. For example, if you display the count of the first field of the array, you would use the index 0 of the array.**
8. **Display Names Sub**
   1. **Receives the number of members, the life group name, and the type of addition or subtraction.**
   2. **Within a for loop, the sub will Prompt the user through an input box to get the name and the number of times members**
   3. **Uses the substring method to parse out the first name and get the first letter of the last name.**
   4. **Display where the user adds or deletes the member, including the first name and the initial of the last name. For example: Adding John S. to Seniors.**
9. Close Button
   1. The application quits when the button is pressed

A screenshot of a computer

Description automatically generated

A screenshot of a computer

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